

# Industrial Chemistry & Materials

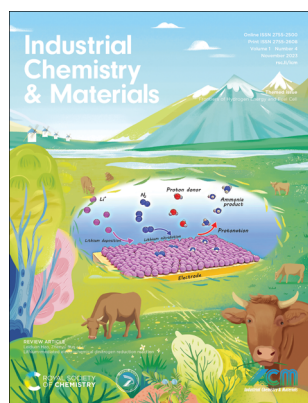
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ISSN 2755-2500 CODEN ICMNCZ 1(4) 467-628 (2023)



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Zhenyu Sun et al.,  
pp. 563–581.  
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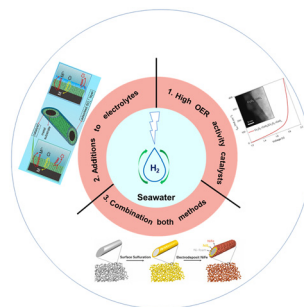
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### Cutting-edge methods for amplifying the oxygen evolution reaction during seawater electrolysis: a brief synopsis

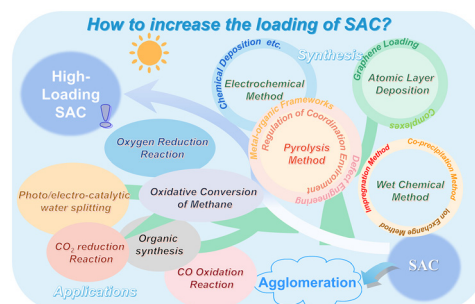
Xiang Lyu\* and Alexey Serov



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### Recent progress in high-loading single-atom catalysts and their applications

Jiahui Luo, Geoffrey I. N. Waterhouse, Lishan Peng\* and Qingjun Chen\*



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ICM (Print ISSN 2755-2608; Online ISSN 2755-2500) is published 4 times a year by the Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, CB4 0WF, UK.

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# Industrial Chemistry & Materials

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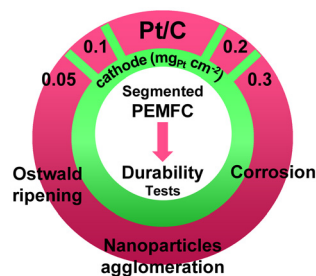
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## Does the platinum-loading in proton-exchange membrane fuel cell cathodes influence the durability of the membrane-electrode assembly?

Ricardo Sgarbi, William Ait Idir, Quentin Labarde, Michel Mermoux, Peizhe Wu, Julia Mainka, Jérôme Dillet, Clémence Marty, Fabrice Micoud, Olivier Lottin and Marian Chatenet\*



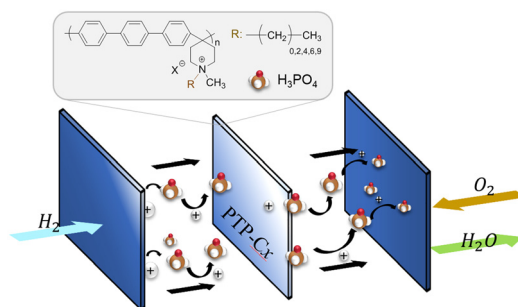
»The degradation mechanisms do not depend on the cathode Pt loading in contrast to the rate of Ostwald ripening

»The degradation rate is initially faster for the low cathode Pt loading MEA

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## The effect of grafted alkyl side chains on the properties of poly(terphenyl piperidinium) based high temperature proton exchange membranes

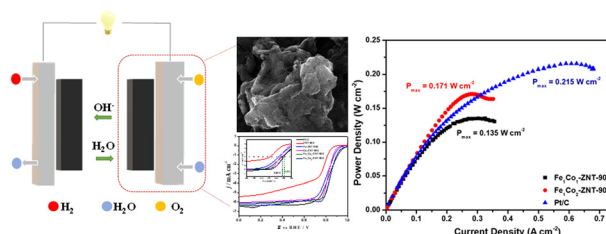
Xuefu Che, Lele Wang, Ting Wang, Jianhao Dong and Jingshuai Yang\*



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## Highly active ZIF-8@CNT composite catalysts as cathode materials for anion exchange membrane fuel cells

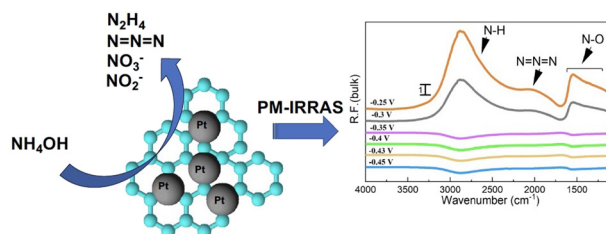
Rohit Kumar, Marek Mooste, Zubair Ahmed, Srinu Akula, Ivar Zekker, Margus Marandi, Maike Käär, Jaan Leis, Arvo Kikas, Alexey Treshchalov, Markus Otsus, Jaan Aruväli, Vambola Kisand, Aile Tamm and Kaido Tammeveski\*



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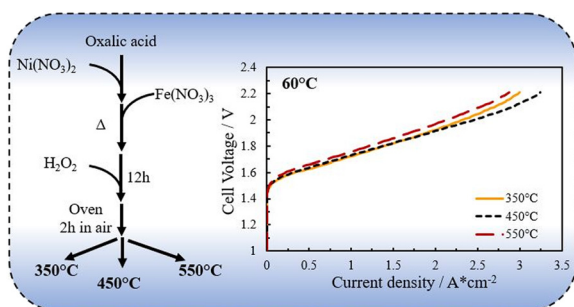
## Unveiling the particle size effect and surface reactivity of Pt/C nanoparticles for ammonia electrooxidation using *in situ* infrared spectroscopy

Niloofer Aligholizadeh K, Ashwini Reddy N, Evans A. Monyoncho and Elena A. Baranova\*



## PAPERS

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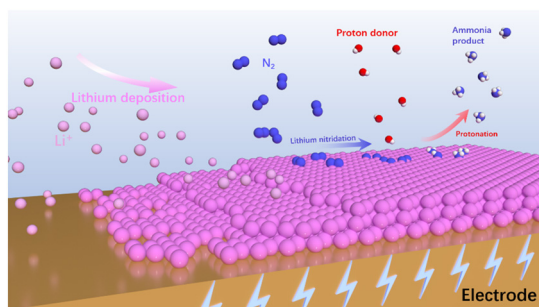
### Effect of the calcination temperature on the characteristics of Ni/Fe-oxide electrocatalysts for application in anion exchange membrane electrolyzers

Angela Capri, Irene Gatto, Carmelo Lo Vecchio and Vincenzo Baglio\*

## REGULAR RESEARCH ARTICLES

## REVIEWS

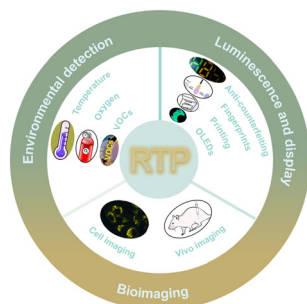
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### Lithium-mediated electrochemical dinitrogen reduction reaction

Muhammad Saqlain Iqbal, Yukun Ruan, Ramsha Iftikhar, Faiza Zahid Khan, Weixiang Li, Leiduan Hao,\* Alex W. Robertson, Gianluca Percoco and Zhenyu Sun\*

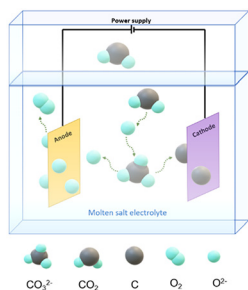
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### Recent progress with the application of organic room-temperature phosphorescent materials

Mengxing Ji and Xiang Ma\*

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Capture:  $\text{CO}_2 + \text{O}^{2-} \rightarrow \text{CO}_3^{2-}$   
 Cathode:  $\text{CO}_3^{2-} + 4\text{e}^- \rightarrow \text{C} + 3\text{O}^{2-}$   
 Anode:  $2\text{O}^{2-} \rightarrow \text{O}_2 + 4\text{e}^-$   
 Overall:  $\text{CO}_2 \rightarrow \text{C} + \text{O}_2$   
 General temperature range: 400–900 °C  
 Electrolysis technique: constant voltage or constant current

### Overview of CO<sub>2</sub> capture and electrolysis technology in molten salts: operational parameters and their effects

Qiuji Zhu, Yimin Zeng\* and Ying Zheng\*



## CORRECTIONS

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**Correction: Hierarchically ordered porous carbon with atomically dispersed cobalt for oxidative esterification of furfural**

Wen Yao, Chenghong Hu, Yajie Zhang, Hao Li, Fengliang Wang, Kui Shen, Liyu Chen\* and Yingwei Li\*

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**Correction: Lithium-mediated electrochemical dinitrogen reduction reaction**

Muhammad Saqlain Iqbal, Yukun Ruan, Ramsha Iftikhar, Faiza Zahid Khan, Weixiang Li, Leiduan Hao,\* Alex W. Robertson, Gianluca Percoco and Zhenyu Sun\*



